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PTO/SB/21 (08-00)

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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/443,070
	Filing Date	November 18, 1999
	First Named Inventor	Terry L. Gilton
	Group Art Unit	1641
	Examiner Name	G. Gabel
	Attorney Docket Number	2269-3530.2US (97-1257.2)

ENCLOSURES (check all that apply)		
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<input checked="" type="checkbox"/> Reply Brief in response to Examiner's Answer dated 01/20/04	<input type="checkbox"/> Certified Copy of Priority Document(s)	
<input type="checkbox"/> Letter to Chief Draftsman and copy of FIGS. with changes made in red	<input type="checkbox"/> Assignment Papers (for an Application)	
<input type="checkbox"/> Transmittal of Formal Drawings	Remarks	
<input type="checkbox"/> Formal Drawings ( sheets)	The Commissioner is authorized to charge any additional fees required but not submitted with any document or request requiring fee payment under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account 20-1469 during pendency of this application.	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Brick G. Power Registration No. 38,581
Signature	
Date	March 22, 2004

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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of:**

Terry L. Gilton

**Serial No.:** 09/443,070

**Filed:** November 18, 1999

**For:** SEPARATION APPARATUS  
INCLUDING POROUS SILICON COLUMN

**Confirmation No.:** 6721

**Examiner:** G. Gabel

**Group Art Unit:** 1641

**Attorney Docket No.:** 2269-3530.2US  
(97-1257.02/US)

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**REPLY BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Sir:

This Reply Brief is being submitted in TRIPLICATE pursuant to 37 C.F.R. § 1.192(a) and in the format required by 37 C.F.R. § 1.192(c).

As the Examiner's Answer was mailed on January 20, 2004, and March 20, 2004, fell on a Saturday, this Reply Brief, which is being filed by Monday, March 22, 2004, should be deemed to have been submitted within two months of the mailing date of the Examiner's Answer.

37 C.F.R. § 1.7.

(8) ARGUMENT

(A) Independent Claims 1 and 18

Independent claim 1 of the above-referenced application recites “applying [a] sample to a first end of a porous capillary column *formed in a nonporous substrate*, said porous capillary column comprising a matrix *including the same material as said nonporous substrate . . .*”

Independent claim 18 is similarly drawn to a method for identifying the presence of absence of a constituent in a sample, including, among other things, “applying [a] sample to a first end of a capillary column *formed in a nonporous substrate*, said capillary column comprising a matrix *including the same material as said nonporous substrate . . .*”

(B) Analysis

(i) “Formed In”

It has been asserted in the Examiner’s Answer that the recitation of use of a capillary column which is “formed in” a nonporous substrate is broad enough to encompass the apparatus that are described in U.S. Patent 5,571,410 to Swedberg (hereinafter “Swedberg”).

It is respectfully submitted that the apparatus that is used in accordance with independent claims 1 and 18 includes a capillary column that is made from a region of a nonporous substrate. Thus, the capillary column is “formed” in the nonporous substrate.

In contrast, the description of Swedberg is limited to use of apparatus that include capillary columns that are made by creating a trench in a nonporous substrate, the introducing a porous material into the trench. The capillary column comprises the pores of the porous material, which are not “formed in” the nonporous substrate but, rather, in the material that is introduced into the trench in the nonporous substrate.

Accordingly, it is respectfully submitted that use of the capillary columns described in Swedberg does not fall within the scope of use an apparatus which includes a capillary column that has been “formed in” a nonporous substrate.

It is therefore, respectfully submitted that independent claims 1 and 18 recite subject matter which is neither expressly nor inherently described in Swedberg.

(ii) Same Material

It is further submitted that Swedberg does not anticipate the application of a sample to a capillary column with a matrix that comprises “the same material as [the] nonporous substrate” in which the capillary columns are formed, as recited in independent claims 1 and 18.

While one of the many types of substrate materials described in Swedberg overlaps with one of the many types of capillary column materials described in Swedberg, Swedberg does not include any express or inherent description of application of a sample to an apparatus that includes a nonporous substrate and a capillary column that are formed from the same material.

It is, therefore, respectfully submitted that independent claims 1 and 18 recite subject matter which is neither expressly nor inherently described in Swedberg.

(iii) Functional Language

The Examiner’s Answer in the above-referenced appeal asserts that the limitations that distinguish each of claims 1, 2, 8, and 12-31 of the above-referenced application from the subject matter described in Swedberg are functional limitations which “bear[] no patentable weight.” Examiner’s Answer, pages 5 and 8; *see also* Examiner’s Answer, page 6.

(a) Applicable Rule

Section 2173.05(g) of the M.P.E.P. provides the following guidance with respect to functional limitations:

A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.

Functional limitations are “perfectly acceptable” when they “set definite boundaries on the patent protection sought.” M.P.E.P. § 2173.05(g).

(b) Analysis

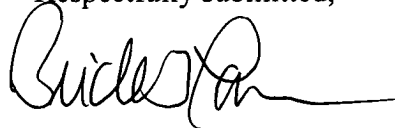
It is respectfully submitted that the recitation of a structure that is used in a method constitutes a limitations which bears patentable weight. In this instance, the claims at issue are directed to methods which include, among other things, applying a sample to a capillary column that is *formed in* a nonporous substrate and that comprises a matrix which includes the *same material* as the nonporous substrate.

Based on the clear recitations in independent claims 1 and 18, it is clear to one of ordinary skill in the art that both of these claims are directed to a method for using a sample separation apparatus that includes a capillary column that is formed in nonporous substrate and that comprises a matrix that includes the same material as the nonporous substrate. These are definite boundaries on the type of apparatus that may be used in the methods of independent claims 1 and 18.

As such, the recitations in independent claims 1 and 18 of applying a sample to a capillary column formed in a substrate and that comprises a matrix formed from the same material as that from which the substrate is formed should be given patentable weight.

In view of the foregoing, reversal of the 35 U.S.C. § 102(b) rejections of independent claims 1 and 18, as well as of the claims that depend therefrom, is respectfully requested.

Respectfully submitted,



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Date: March 22, 2004

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